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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,876	02/10/2000	Eddie D. Sowle	163.1173USI1	4490
23552	7590	06/17/2004	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			YU, GINA C	
			ART UNIT	PAPER NUMBER
			1617	

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/501,876	<b>Applicant(s)</b> SOWLE ET AL.	
	<b>Examiner</b> Gina C. Yu	<b>Art Unit</b> 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-19, 21-27 and 29-62 is/are pending in the application.  
4a) Of the above claim(s) 30-49, 52 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9, 11-19, 21-27, 29, 50, 51 and 53-62 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 28, 2003 has been entered. Claims 1-9, 11-19, 21-27, 29-62 are pending, of which claims 30-49 and 52 are withdrawn from consideration.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9, 11-19, 21-27, 29, 50, 51, 53-62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 8, 9, and 19, applicants recite "a source of dye, the dye comprising a particulate dye having a particle size of greater than about 200 microns". It appears that the component (b) is a composition comprising a dye and not the actual dye itself. It is not clear whether it is the source of dye or the actual dye that has that particle size greater than about 200 microns.

In claim 19, the scope of the limitation, "about 15 minutes", is unclear. Does 10 or 11 minutes meet the limitation?

In claim 29, step (c) recites, "removing the aqueous liquid halogen source". Is it the aqueous liquid comprising halogen source that is being removed (e.g., by wiping), or do applicants mean that halogen source is removed from the composition?

The acid salts recited are inconsistently referred as "acid" in claim 16, while claim 26 refers them as "acid salts".

The remaining claims are rejected as being dependent on indefinite base claims.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-5, 7, 8, 19, 21, 22, 25, 26, 27, 50, 51, 55, 56, and 59-62 are rejected under 35 U.S.C. 103(a) as obvious over Holdt et al. (US 4, 683, 072) in view of Kitko (US 4248827)

Holdt teaches a disinfectant tablet comprising, among others, 1) up to 50 % by weight of a disinfectant selected from a chlorine releasing or an active oxygen containing compound or acid; 2) 5-15 % by weight of a dye in a dye-containing component. See abstract. The reference teaches that the dye-containing component (which meets "a source of dye" requirement) comprises disintegration rate regulator and plasticizer, and inorganic alkali metal salts such as sodium sulfate (builder salt). See instant claims See Example 1, for the use of sodium dichloroisocyanurate dihydrate. See instant claims 4 and 21. The reference teaches using dyes that are "mainly green and blue shades ... which are sensitive to chlorine or active oxygen and change their color more or less rapidly in the presence of hypochlorite or active oxygen or fade out". See col. 2, lines

58 – 66. The reference teaches in Example 3 a cleaning and disinfectant table comprising acid compounds. See instant claim 1(c). The reference teaches sodium bisulfate (sodium hydrogen sulfate). See instant claims 25 and 26. The pH of the acid-containing composition is obviously below 7.

While Holdt fails to teach a composition comprising both a chlorine-releasing agent and an acid compound, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined both in a single composition in a reasonable expectation of successfully producing a cleaning and disinfecting tablet of enhanced effects. Alternatively, the idea for combining compounds each of which is known to be useful for the same purpose, in order to form a composition which is to be used for the same purpose, flows logically from their having been used individually in the prior art. See In re Kerkhoven, (citation omitted). As shown by the recited teachings, the instant claims define nothing more than the concomitant use of conventional disinfecting agents used for toilet bowl cleaning. It would follow that the recited claims define prima facie obvious subject matter.

While Holdt fails to teach the “particle size” of the dye-containing components, examiner takes the position that one of ordinary skill in the art would be able to determine the dimensional size of the component given the teaching that the dye-containing component in the tablet weighs 20-200 grams. See instant claims 2, 5, 7. See Drawings and col. 5, lines 51-68 for the shape and weight of the tables. While the size or dimension of the tablets are not taught, examiner views it obvious for a skilled artisan to discover an optimum size of the tablet for desired strength and effectiveness.

See instant claims 2, 3 and 5. The methods of claims 53 and 54 are met by the obvious method steps of flushing or draining the water in the tank or sink. The water in which the tablet is dissolved meets the aqueous liquid composition of instant claims 19 and 50. The tablet is said to comprise substances to minimize the premature interaction of the components and has improved shelf life. See col. 1, lines 47 – 63; col. 2, lines 22 - 26.

Holdt fails to teach the duration which the composition changes from colored to colorless state. The reference also fails to teach the amount of dye in as required by instant claim 18.

Kitko teaches method for sanitizing toilets comprising hypochlorite agent and dye agents are dispensed into the toilet flush water, wherein the dye is oxidized from a colored state to a colorless state within 5 seconds to 10 minutes after contact with the hypochlorite. See col. 1, line 57 – col. 2, line 20. Sodium dichloroisocyanurate dihydrate of instant claim 3 is among the sanitizing hypochlorite agents for the invention. See col. 2, lines 21 – 49. The reference teaches that the dye should be present in a ratio of available chlorine:dye of from 2:1 to about 150:1, preferably from about 5:1 to 25:1. The reference teaches the amount of hypochlorite-providing compound is sufficient to provide from about 2 to about 30 ppm. See col. 2, lines 55- 60. See instant claim 18. The reference also illustrate the testing of dyes for the time interval to change its color to colorless stage at catalyzed and uncatalyzed chlorine level of 5 ppm, at pH 6 and 9. See col. 3, line 60 – col. 4, line 58. While FD&C dyes, such as FD&C no. 3, are tested, the reference teaches that dyes provide the color change within a period of from

about 5 seconds to 10 minutes. See instant claim 14. Using FD&C dye no. 40 is viewed as an obvious choice for a desired color of the composition or solution. See instant claims 13 and 23.

While the reference teaches that the color change occurs in 5 seconds to 10 minutes, the reference also teaches that the amount of dyes depend on the intensity of the color, and the quickness with which it is desired to have the color disappear, while also suggesting that wide variety of dyes can be used. See col. 3, lines 34 – 52. . Examiner views that given this information, one of ordinary skill in the art would have discovered, by routine experimentations, the optimum ratio of chlorine to dye required to produce the color-to-colorless signal within a desired time frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of Holdt by varying the amount of dye component or hypochlorite agent as motivated by Keiko because 1) both Holdt and Keiko are directed to chlorine bleach compositions with color indicator for the same use; 2) and the skilled artisan would have had an expectation of successfully producing a composition with desired quickness of the color disappearance.

2. Claims 6, 9, 11, 13-18, 21-24, 27, 29, 53, 54, 57, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holdt as applied to claims 1-5, 7, 8, 19, 21, 22, 25, 26, 27, 50, 51, 55, 56, and 59-62 above, and further in view of Gladfelter (US 5358653) ("Gladfelter").

Holdt, discussed above, fails to teach the composition in encapsulated form.

Gladfelter teaches a cast chlorinated rinse aid concentrate suitable for dispensing an aqueous rinse concentrate and to methods of rinsing with simultaneous stain removal or sanitization. See col. 3, lines 37 – 41. The dimensions and shapes of the solid composition are disclosed in col. 3, lines 37 – 57. See instant claims 3. Examples disclose the preparation of encapsulated active chlorine compound comprising sodium dichloroisocyanurate dihydrate and sodium sulfate. See instant claims 4, 9, 11, and 17. Using monosodium orthophosphate (sodium dihydrogen phosphate) is also suggested. See col. 5, lines 1 – 11. See instant claim 15. The encapsulated chlorine source of the invention comprises the core of active chlorine with an inorganic intermediate coating and an outer organic coating. See col. 4, line 60 – col. 7, line 35. See instant claim 44. The reference teaches the method of using the invention, which include introducing the aid into potable water in rinse cycles at relatively neutral pH, wherein the concentration of the active chlorine is about 3 to 50 ppm. See col. 2, lines 29 – 49. The reference also teaches using higher chlorine concentration for more effective sanitization. The reference further provides that the concentration required may vary depending on the temperature of the water. See col. 12, line 50 – col. 13, line 7. The reference also teaches that, in the process of the preparation of the composition, the encapsulated chlorine and additives are “thoroughly mixed” before hardening. See col. 12, lines 5 – 32. See instant claims 53 and 54. The reference teaches “the encapsulated chlorine sources, in combination with a polyalkylene oxide type rinse aid surfactants of the invention are stable during manufacture, storage, transportation, and use.” See col. 4, lines 6-11.



It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Holdt composition by making an encapsulated disinfectant composition as motivated by Gladfelter because 1) both references are directed to chlorine bleach composition for hard surfaces; 2) Gladfelter teaches that the encapsulating chlorine source has special advantage of stability of the composition during manufacturing, storage, and use and allows to add surfactants for stain removal; 3) thus one of ordinary skill in the art would have had reasonable expectation of successfully producing a stable bleach composition for removing stains and disinfection.

### ***Response to Arguments***

Applicant's arguments filed on February 24, 2003 have been fully considered but they are moot in view of the new grounds of rejection in part, and not persuasive in part.

Applicants argue that Gladfelter and Holdt are not combinable, asserting that disinfecting tablets for warewashing and toilet cleaning have different utility. Examiner respectfully disagrees. In response to applicant's argument that the cited references are nonanalogous arts, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Examiner respectfully disagrees with applicants' assertion that one of ordinary skill in the art in this case is a "dishwashing or kitchen personnel". Rather, examiner views that the skilled artisan in this case is a routineer in oxidative bleaching composition art. Both of the prior art inventions are directed to

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chlorine bleaching tablets containing dyes, which cleans and disinfect household substrates, such as sink, upon contact with water. Applicants' inventions are also chlorine-disinfecting compositions containing dye. Examiner asserts that the cited references are analogous since they are both in the field of and pertinent to applicant's endeavor – chlorine and/or oxidative bleaching.


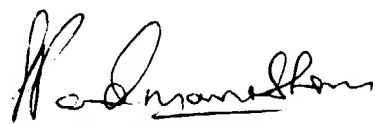
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 571-272-0635.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gina Yu  
Patent Examiner

  
6/10/04  
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